



# Newborn screening of Adrenal Hyperplasia

Enzyme immunoassays with fluorometric determination of human 17-OH-progesterone  
from blood specimens dried on filter paper

- Competitive assay
- Excellent reproducibility
- High sensitivity with high signal/background ratio
- Easy adaptation to existing screening systems

# Neonatal 17-OHP FEIA

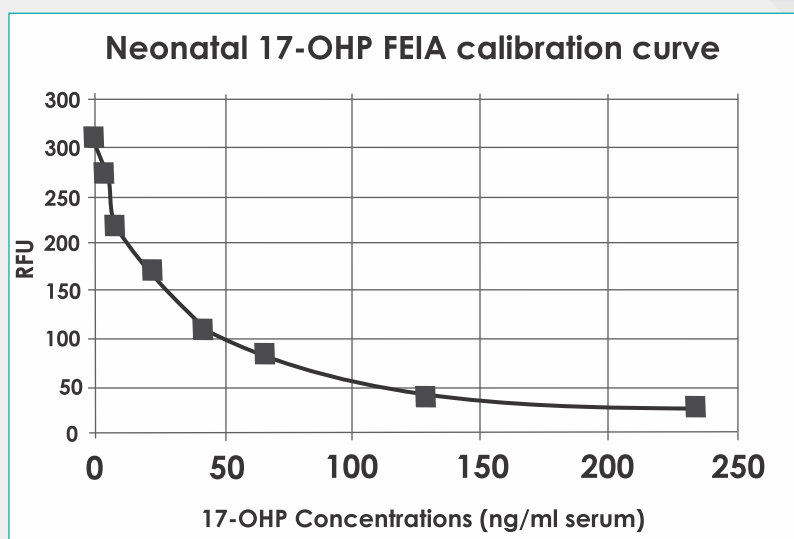
## Easy and reliable screening for CAH

### Congenital Adrenal Hyperplasia (CAH)

Congenital Adrenal Hyperplasia (CAH) includes a group of disorders in which the cortisol production by adrenals is lowered. There are several different forms of CAH, each related to one of the enzymes necessary to transform precursors to cortisol. When one of these enzymes is deficient, this leads to a hyperfunction and increased size (hyperplasia) of the adrenals, hence the name Congenital Adrenal Hyperplasia.

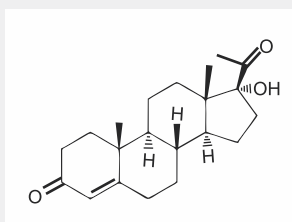
Among the various forms of CAH, the 21-hydroxylase deficiency is by far the most frequent, representing more than 90% of all cases. 21-hydroxylase deficiency results in high level of circulating 17-hydroxyprogesterone. Various mutations of the 21-hydroxylase gene result in various degrees of CAH severity.

CAH cannot be cured, but it can be effectively treated by steroid substitution therapy if detected in early stage of life and disease course. LabSystems Diagnostics' Neonatal 17-OH-Progesterone FEIA test allows quantification of 17-hydroxyprogesterone in dried blood spot samples.



#### Assay Procedure

1. Punch out 3.2 mm disks from blood calibrators and controls (in duplicates) as well as from patient specimens (single) into the microtiter plate.
2. Add 200  $\mu$ l of 17OHP-HRP conjugate. Make sure that the discs are properly soaked.
3. Cover the plate and incubate 1 hour at RT in dark with shaking and then overnight at +4° C without shaking.
4. Remove disks, wash 4 x 300  $\mu$ l.
5. Add 200  $\mu$ l of substrate solution.
6. Incubate 60 min at +4°C in the dark.
7. Add 100  $\mu$ l of stop solution.
8. Measure fluorescence at ex. 320, em. 405 nm.



Cat.no.	Product name	Plate type	Packing size	Regulatory status
6199870	Neonatal 17-OH-Progesterone FEIA	12x8 strip	480 wells	CE marked
6199871	Neonatal 17-OH-Progesterone FEIA	96 well solid	960 wells	CE marked
6199872	Neonatal 17-OH-Progesterone FEIA	12x8 strip	960 wells	CE marked

Type 903 filter paper is used in all products.

#### LabSystems Diagnostics Oy

Tiilitie 3, FI-01720 VANTAA, Finland Tel: +358 201 557 530

Email: [sales@labsystemsdx.com](mailto:sales@labsystemsdx.com)

Web: [www.labsystemsdx.com](http://www.labsystemsdx.com)

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